



# PATENT SPECIFICATION

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207,948

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## PROVISIONAL SPECIFICATION:

### Improvements in Hair Waving Appliances.

We, GEORGE ALDWORTH, Director, and ARTHUR CHARLES HORNETT, Assistant Manager, of C. Nestle & Company Limited, of 48, South Molton Street, London, W. 1, Hair Specialists, both British subjects, do hereby declare the nature of this invention to be as follows:—

In the Specification of Patent No. 1825 of 1915 a chemically treated tube—called a compound tube—for use in the well known permanent process of waving the hair on the human head is described, this tube comprising a sheet of absorbent material, such as blotting paper, having a layer of borax or other suitable reagent spread thereon, the sheet being then rolled up into a tube and provided with an outer covering of non-absorbent material, such as vegetable parchment, tin-foil or the like.

Experience has shown that in the hands of practiced hairdressers, these tubes are entirely satisfactory, since the sense of touch has been educated and the operator can readily tell when the tress of hair coiled upon the metal curler is accurately in position in the tube, so that the tying of the tube close to the roots of the hair can be effected, to prevent escape of steam when the heater is applied.

It is important that when the ligature is applied it should tie the projecting part of the non-absorbent tube-covering directly to the hair, above the curler, and not to the hair on the curler, and with the compound tubes hitherto used owing to the nature of the material used for

the outer covering the operator has been obliged to trust to his sense of touch, as he could not see the exact position of the curler in the tube.

In order to remove this drawback we employ as the outer covering a sheet of transparent flexible material, such as clear gelatine. When such material is used the exact position of the hair and curler within the tube, prior to tying, can be easily seen even if there are two or three layers or turns of the outer covering. The operator can thus see at once if the curler is in correct position within the tube, before he ties the tube to the hair.

A further advantage of sheet gelatine for the purpose in view is that owing to its thinness and flexibility it is easier to make a sound steam tight ligature, than is the case when a thicker and less flexible material is used. This is important because if steam, during the heat treatment, escapes through the ligature, which is close to the scalp, annoyance and possibly injury to the scalp of the person operated upon will result.

It is not necessary that the whole of the outer covering sheet should be a gelatine, since it would be sufficient if the top edge of the tube is of transparent material.

Dated this 17th day of October, 1922.

DICKER & POLLAK,  
Chartered Patent Agents,  
20—23, Holborn, London, E.C. 1,  
Agents for the Applicants:

## COMPLETE SPECIFICATION.

### Improvements in Hair Waving Appliances.

We, GEORGE ALDWORTH, Director, and ARTHUR CHARLES HORNETT, Assistant Manager, of C. Nestle & Company Limited, of 48, South Molton Street,

London, W. 1, Hair Specialists, both British subjects, do hereby declare the nature of this invention and in what manner the same is to be performed, to

be particularly described and ascertained in and by the following statement:—

In the Specification of Patent No. 1825 of 1915 a chemically treated tube 5 called a compound tube—for use in the well known process of permanently waving the hair on the human head is described, this tube comprising a sheet 10 of absorbent material, such as blotting paper, having a layer of borax or other suitable reagent spread thereon, the sheet being then rolled up into a tube and provided with an outer covering of non-absorbent material, such as vegetable 15 parchment, tin-foil or the like.

Experience has shown that in the hands of practiced hairdressers, these tubes are entirely satisfactory, since the sense of touch has been educated and the 20 operator can readily tell when the tress of hair coiled upon the metal curler is accurately in position in the tube, so that the tying of the tube close to the roots of the hair can be effected, to prevent 25 escape of steam when the heater is applied.

It is important that when the ligature is applied it should tie the projecting part of the non-absorbent tube-covering 30 directly to the hair, above the curler, and not to the hair on the curler, and with the compound tubes hitherto used owing to the nature of the material used for the outer covering the operator has been 35 obliged to trust to his sense of touch, as he could not see the exact position of the curler in the tube.

In order to remove this drawback we employ as the outer covering a sheet of 40 transparent flexible material, such as thin flexible celluloid or clear gelatine, which has been rendered more or less non-absorbent, in any well-known manner. When such material is used the 45 exact position of the hair and curler within the tube, prior to tying, can be easily seen even if there are two or three layers or turns of the outer covering. The operator can thus see at once if the 50 curler is in correct position within the tube, before he ties the tube to the hair.

A further advantage of sheet gelatine for the purpose in view is that owing to its thinness and flexibility it is easier to 55 make a sound steam tight ligature, than is the case when a thicker and less flexible material is used. This is important because if steam, during the heat treatment, escapes through the 60 ligature, which is close to the scalp, annoyance and possibly injury to the scalp of the person operated upon will result.

An illustration of a tube formed

according to this invention is given in the accompanying drawing in which:—

Fig. 1 shows the sheets before being rolled up, and

Fig. 2 the completed tube.

We take a sheet 1 of absorbent paper 70 and fold and treat it as described in the specification previously referred to, but instead of applying an outer covering of vegetable parchment or tinfoil, we attach or lay partly under the end 4 of 75 the absorbent material, a sheet 5 of transparent non-absorbent material, one or both ends projecting say about an inch beyond the side of said paper. The sheet, with its borax or like charge is 80 then rolled up on a former and the outer edge of the transparent sheet is moistened or gummed so as to keep the tube thus formed (Figure 2) in shape, the former 85 being then withdrawn. One end of the tube is then closed, and the other end is left open and as it consists of transparent material, when the curler with its coiled 90 up tress of hair wound upon it, is inserted, the operator can clearly see, through the transparent end, whether the curler and tube are in correct position for tying.

While the gelatine sheet may extend 95 completely across the width of the absorbent sheet and project beyond both lateral edges thereof, we may merely apply a narrower strip to one edge, this strip of course, extending beyond the lateral edge of the absorbent sheet. Or 100 such a sheet of gelatine may be applied to each lateral edge. We make no claim to the use of a transparent sheet of non-absorbent material, *per se*, but

Having now particularly described and 105 ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A compound tube of the kind 110 referred to, comprising in combination a sheet of absorbent material, a layer of borax or other suitable reagent thereon, and a sheet of flexible non-absorbent transparent material, the edge or edges 115 of which projects laterally beyond the sheet of absorbent material, the whole being rolled up into tube formation with the transparent material outermost.

2. A compound tube of the kind 120 referred to, constructed substantially as described.

Dated this 14th day of August, 1923.

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[This Drawing is a reproduction of the Original on a reduced scale.]

FIG. 1.

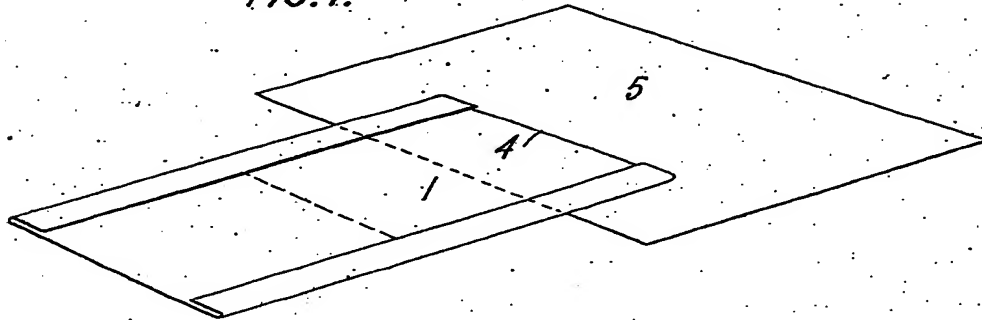
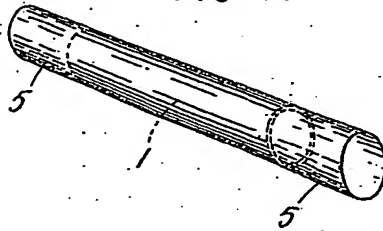


FIG. 2.



Malby &amp; Sons, Photo-Litho